

DETAILED ACTION

1. Claims 12, 27, 42, 52, 54-59, 66, 68-73, 80 and 82-87 are pending in Instant Application.
2. Claims 12, 27, 42, 52, 54-59, 66, 68-73, 80 and 82-87 are allowed over the prior art of record.

Examiner's Amendment

3. Please amend Specification, page 1, paragraph [0001], line 2 as follows:

Replace [____/____,____] with "10/116,524".

Allowable Subject Matter

4. The following is the Examiner's statement of reasons for allowance:

Independent Claim 12 is disclosed in the Specification as:

A method of reporting simulation data obtained by the simulation of an electronic design within a data processing system (**Figures 1-2; page 9, line 1**). The method includes a simulator running a testcase against a simulation model of the electronic design (**Figure 15, block 1504; page 68, line 16**). The simulation model is formed of representations of instances of a plurality of design entities (**Figure 3A, reference numeral 300; page 11, line 17**), where the instances of the design entities contain a plurality of signals and functional logic that define functional operation of the electronic design (**page 11, line 17 through page 12, line 20**). Each instance of at least a particular design entity of the plurality of design entities contains an instance of an instrumentation entity that monitors the containing instance of the particular design entity *but does not contribute to functional operation of the electronic design* (**Figure 13, reference numerals 1314a and 1314b; page 64, line 21 through page 65, line 2**). Each instance of the instrumentation entity contains a trace array (**Figures 13-14, trace array 1320; page 65, line 4**) logically coupled to receive a monitored signal set including at least one signal among the plurality of signals (**Figure 13; page 65, line 4**), where the trace array is further logically coupled to receive a control signal among the plurality of signals (**Figure 13, CTRL signal; page 65, line 12**). With the trace array, trace data for the monitored signal set is recorded during the running of the testcase, where the recording includes concurrently storing within the trace array multiple values of the monitored signal set obtained over multiple cycles of functional operation of the simulation model

(Figure 14, entries 1402a-1402n; page 66, line 28). Values assumed by the monitored signal set are recorded in the trace array for only those cycles of functional operation during which the control signal is asserted so that no values assumed by the monitored signal set are recorded for those cycles of functional operation during which the control signal is not asserted (**page 66, lines 21- 23**). A number of functional cycles elapsed between the values assumed by the monitored signal set are also recorded within the trace array (**Figure 14, count field 1408; page 67, line 12**). The trace data is exported from the trace array in a trace file, and the trace file is stored in data storage (**Figure 15, block 1512; page 69, line 4**).

Independent Claim 27 is disclosed in the Specification similarly as noted above.

5. As per exemplary claim 12, the most relevant prior-art of record is Raime in view of Levin that discloses the claimed subject matter as set-forth in Final Office Action dated 7/3/2008, with exception of the following. The prior art does not explicitly disclose or suggest: "recording trace data for the monitored signal set within the trace array during the running of the testcase ... , wherein recording trace data includes ... recording within the trace array a number of functional cycles elapsed between said values assumed by the monitored signal set."
6. Applicants' arguments on last paragraph of page 9 have been fully considered and are persuasive.
7. Dependent claims are allowable because they incorporate allowable subject matter of the above-allowed claims.

The art of record, either individually or in combination, fails to teach, suggest, or render obvious invention having the corresponding function that is claimed. In view of the foregoing, the Instant Claims of the present application are found to be patentable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Art Unit: 2128

8. All claims are found allowable over prior-art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Silver whose telephone number is (571) 272-8634. The examiner can normally be reached on Monday thru Friday, 10am to 6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah can be reached on 571-272-2279. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Kamini S Shah/
Supervisory Patent Examiner, Art Unit 2128

David Silver
Patent Examiner
Art Unit 2128

/ds/